

1	1. A transformed lactic acid bacterium, the bacterium comprising a DNA molecule
2	that comprises (1) a nucleotide sequence that encodes a protein allergen and (2) a promoter
3	operably linked to the nucleotide sequence.
1	2. The bacterium of claim 1, wherein the bacterium is of the genus <i>Lactobacillus</i> .
1	2. The bacterium of claim 2, wherein the bacterium is Lactobacillus acidophilus.
1	A. The bacterium of claim 1, wherein the bacterium is of the genus Streptococcus.
1	5. The bacterium of claim 4, wherein the bacterium is Streptococcus thermophilus.
1	6. The bacterium of claim 1, wherein the protein allergen a dust mite allergen.
1	7. The bacterium of claim 6, wherein the dust mite is Dermatophagoides
2	pteronyssinus.
1	8. The bacterium of dlaim 7, wherein the allergen is Der p 5.
1	7. The bacterium of claim 1, wherein the promoter is a bacterial erythromycin
2	resistance gene promoter.
1	10. A transformed Lactobacillus acidophilus bacterium comprising a DNA molecule
2	that comprises a gene expressing Der p 5.
1	11. A transformed Streptococcus thermophilus bacterium comprising a DNA
2	molecule that comprises a gene expressing Der p 5.
1	12. A method of decreasing the production of IgE in a subject exposed to an allergen,
2	the method comprising
3	administering to a subject the bacterium of claim 1; and

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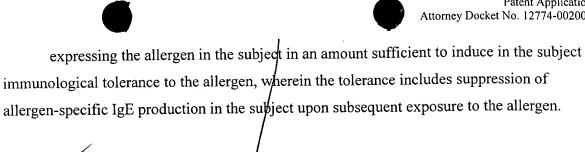
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13. A method of decreasing the	production of IgE in a subject exposed to a dust mite
allergen, the method comprising	
administering to a subject the ba	octerium of claim 10: and

expressing the allergen in the subject in an amount sufficient to induce in the subject immunological tolerance to the allergen, wherein the tolerance includes suppression of allergen-specific IgE production in the subject upon subsequent exposure to the allergen.

14. A method of decreasing the production of IgE in a subject exposed to a dust mite allergen, the method comprising

administering to a subject the bacterium of claim 11;

expressing the allergen in the subject in an amount sufficient to induce in the subject immunological tolerance to the allergen, wherein the tolerance includes suppression of allergen-specific IgE production in the subject upon subsequent exposure to the allergen.

15. A method of relieving bronchopulmonary congestion in a subject exposed to an allergen, the method comprising

administering to a subject the bacterium of claim 1; and

expressing the allergen in the subject in an amount sufficient to relieve bronchopulmonary congestion in the subject upon subsequent exposure to the allergen.

16. A method of relieving bronchopulmonary congestion in a subject exposed to a dust thite allergen, the method comprising

administering to a subject the bacterium of claim 10; and

expressing the allergen in the subject in an amount sufficient to relieve

bronchopulmonary congestion in the subject upon subsequent exposure to the allergen. 5



1	17. A method of relieving bronchopulmonary congestion in a subject exposed to a
2	dust mite allergen, the method comprising
3	administering to a subject the bacterium of claim 11; and
4	expressing the allergen in the subject in an amount sufficient to relieve
5	bronchopulmonary congestion in the subject upon subsequent exposure to the allergen.
1	18. The method of claim 12, wherein the bacterium is orally administered to the
2	subject.
1	19. The method of claim 13, wherein the bacterium is orally administered to the
2	subject.
1	20. The thethod of claim 14, wherein the bacterium is orally administered to the
2	subject.
1	21. The method of claim 15, wherein the bacterium is orally administered to the
2	subject.
1	22 The method of claim 16, wherein the bacterium is orally administered to the
2	subject.
1	23. The method of claim 17, wherein the bacterium is orally administered to the
2	subject.
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